

Awarding body / institution:	Queen Mary University of London					
Teaching institution:	Queen Mary University of London					
Name of final award and programme title:	BSc Environmental Science with Business Management					
Name of interim award(s):						
Duration of study / period of registration:	3 Years Full time					
QMUL programme code / UCAS code(s):	F8N2					
QAA Benchmark Group:	Earth Science, Environmental Science and Environmental Studies					
FHEQ Level of Award :	Level 6					
Programme accredited by:						
Date Programme Specification approved:						
Responsible School / Institute:	School of Geography					
Schools / Institutes which will also be involv	ved in teaching part of the programme:					
School of Biological & Chemical Sciences						
Department of Law						
School of Engineering & Materials Science						
School of Business & Management						
Institution(s) other than QMUL that will pro	ovide some teaching for the programme:					

N/A

### Programme outline

From global challenges such as climate change and the loss of biodiversity to protecting the quality of local waterways we are all affected by environmental issues. The BSc Environmental Science with Business and Management provides core training in physical and biological sciences, and will enable you to understand these complex problems and train you to protect and manage the environment. It also enables training in business and management skills equiping its students with teh opportunity to pursue environmental careers in a commercial setting.

This is a multi-disciplinary, flexible degree programme, reflecting the complexity of relationships within the natural environment and human interactions with it. You will be taught by staff from the School of Geography, as well as the Schools of



Biological and Chemical Sciences and Business and Management (with further options to take modules in other Schools). There will also be the opportunity to interact with industry and environmental practitioners. The programme provides core training in environmental science research skills and techniques. You will benefit from significant recent investment in laboratory facilities and field equipment.

### Aims of the programme

As a leading centre of business, environmental and ecological research, the Schools of Geography, Biological and Chemical Sciences and Business and Management's shared mission is to teach their students to the very highest academic standards, drawing in creative and innovative ways on their research.

We aim to:

• share our enthusiasm for geographical learning and scholarship with our students;

introduce our students to a range of geographical and environmental knowledge and understanding shaped by staff research interests and by appropriate external frameworks such as the geography and environmental science benchmarking documents;
enable students to specialise within particular fields (defined largely by staff research interests) of geography and environmental science;

• develop intellectual, discipline-specific and key skills as indicated, for example, in the benchmark statements for both geography and environmental science;

• encourage self-reflective awareness of the acquisition of these skills;

• foster critical thinking skills about the world and a continuing sense of enquiry;

• facilitate a range of personal attributes relevant to further achievement in the world beyond undergraduate and postgraduate education.

Our BSc Environmental Science with Business Management degree programme provides students with the knowledge required to understand and manage the biological and physical processes that shape the environment around us and, in particular, to develop understanding of aquatic environments, utilising interdisciplinary expertise within the School of Geography the School of Biological and Chemical Sciences, and the School of Business and Management. The programme also aims to develop and understanding of the spatial and temporal scales over which these processes operate while examining the complexity of relationships within the natural environment and human interaction with it. Students will also develop the intellectual and practical skills, including field and laboratory training, necessary to collect, analyses, interpret and understand a range of environmental data. The programme also develops key skills and attributes for further study and employment where environmental knowledge and skills will be applied. The study of accounting, marketing, strategy and management techniques will provide critical insights into key aspects of the theory and practice of business and management which might be applied in environmental situations.

### What will you be expected to achieve?

Teaching and learning in the programme are closely informed by the active research of staff particularly in relation to the Earth Surface Science research theme in the School of Geography. Some modules are taught by members of staff who specialise in aquatic ecology and organismal biology in the School of Biological and Chemical Sciences. Similarly, the expertise, consultancy experience and research interests of staff in Business and Management inform the teaching and learning on that part of the programme.

The programme provides opportunities for students to achieve and demonstrate the following learning outcomes. These use the Benchmark Statement in Earth Science, Environmental Science and Environmental Studies as a framework interpreted in ways which reflect the distinctive nature of our research and teaching in geography and the other participating schools



### QMUL Model

The QMUL Model is an innovative teaching and learning initiative that will broaden opportunities for Queen Mary undergraduates within and beyond higher education, supporting them to plan and manage their ongoing professional development. The Model is firmly grounded in the core QMUL values of respect for, and engagement with, the local area and communities, with a distinctive focus on enabling students to make a positive societal impact through leadership in their chosen field. The Model is organised around the key themes of:

- networking
- multi- and inter-disciplinarity
- international perspectives
- enterprising perspectives.

Students are required to study QMUL Model modules to the value of at least 10 credits at each year of undergraduate study. Model modules may be 5, 10 or 15 credits. Model modules are indicated within this programme specification.

In your first year of study, the Model module will be core or compulsory and will be situated within your home School or Institute. In subsequent years, students will be strongly encouraged to study at least one Model module beyond their home discipline(s), which could, for example, be in another School / Institute or area of QMUL or undertaken as a module outside of QMUL.

If Model module information is not provided on this programme specification for all subsequent years of study, this will be identified as your studies continue.

Where a Model module elective can be selected from an approved group of Model modules, no guarantee can be provided that your first choice of Model module will be available.

Acad	demic Content:
A1	The need for a multi-disciplinary and an interdisciplinary approach in advancing knowledge and understanding of earth systems drawing from both the natural and social sciences
A2	Processes which shape the natural world at different spatial and temporal scales and influences on and by human activities
A3	Issues concerning the availability and sustainability of resources
A4	The operation of physical systems – their complexity and interrelationship
Α5	Human systems and their interaction with global systems
A6	The role of institutions, organisations and other stakeholders in managing and regulating the human impact on the environment
A7	The significance of spatial and temporal scale
A8	The role and significance of change as central process in the physical world



A9	The diverse forms of representations of the physical world
A 10	The main methodological strategies used in the acquisition, interpretation and analysis of environmental information with a critical understanding of appropriate contexts for their uses
A11	The contribution of environmental science to the debate on environmental issues and how knowledge of these forms the basis for an informed concern about the earth and its people
A 12	modern business issues and theories and management techniques
A 13	the connections between the environment and modern business and management forms

Disc	plinary Skills - able to:						
B1	Planning, designing and executing a piece of rigorous research or enquiry, including the production of a piece of original research						
B2	Describing and commenting upon particular aspects of current geographical and environmental research						
В3	Undertaking effective field work (with due regard to safety and risk assessment)						
Β4	Working safely in a scientific laboratory, with awareness of standard procedures						
В5	Preparing effective maps and diagrams using appropriate technologies						
B6	Employing a variety of technical and laboratory-based methods for the collection and analysis of spatial and environmental information						
Β7	Combining and interpreting different types of geographical evidence						

Attrik	putes:
C1	Engage critically with knowledge (acquire and apply knowledge in a rigorous way; connect information and ideas within their field of study; use writing for learning and reflection; adapt their understanding to new and unfamiliar settings)
C2	Have a global perspective (engage with the professional world)
C3	Learn continuously in a changing world (acquire new learning in a range of ways, both individually and collaboratively; use quantitative data confidently and competently)
C4	Rounded Intellectual Development (good judgement; curiosity and openness to change; initiative and resilience in meeting challenges; respect for the opinions of others and a readiness to act inclusively; the ability to reflect upon and assess their own progress; transferable key skills to help them with their career goals and their continuing education)
C5	Clarity of Communication (develop effective spoken and written English; explain and argue clearly and concisely; apply different forms of communication in various social, professional and cultural settings; use communication technologies competently)
C6	Research Capacity (grasp the principles and practices of their field of study; produce analyses which are grounded in evidence; apply their analytical skills to investigate unfamiliar problems; work individually and in collaboration with others; develop a strong sense of intellectual integrity; acquire substantial bodies of new knowledge)



Information Expertise (identify information needs appropriate to different situations; use technologies to access and
 interpret information effectively; critically evaluate the reliability of different sources of information; use information
 for evidence-based decision-making and creative thinking)

QML	QMUL Model Learning Outcomes - Level 4:						
D1	(Networking) Identify and discuss their own career aspirations or relevant skills and knowledge and how they i						
D2	(Networking) Identify and discuss what their own role in their programme and/or subject discipline might mea						
D3	(Multi/Inter-Disciplinarity) Identify and demonstrate the perspectives or problem solving techniques of differe						
D4	(Multi/Inter-Disciplinarity) Demonstrate connections between different theoretical perspectives within your di						
D5	(International Perspectives) Discuss socio-cultural values and practices with others						
D6	(International Perspectives) Consider the role of their discipline in diverse cultural and global contexts						

QML	QMUL Model Learning Outcomes - Level 5:					
E1	E1 (Multi/Inter-Disciplinarity) Demonstrate how discipline specific problem solving techniques or approaches may be ge					
E2	(Multi/Inter-Disciplinarity) Evaluate perspectives from different disciplines					

QMUL	L Model Learning Outcomes - Level 6:
F1 [	

QMU	JL Model Learning Outcomes - Level 7:
G1	

### How will you learn?

The programme will be taught in accordance with the School of Geography's Teaching and Learning Strategy. The School of Geography is committed to developing, maintaining and supporting excellence in teaching and learning, to innovation in teaching practice, and to fostering independent learning and critical thinking in our students, whilst providing appropriate levels



of support to students in their learning. The delivery of teaching will take a number of forms: lectures small group tutorials seminars workshops computing practical classes quest speakers individual supervision of projects, dissertations and internships fieldwork Learning will be supported by: coherently designed and effectively delivered modules detailed module handbooks, providing learning outcomes and guided reading for each module • the provision of key materials in libraries or through electronic resources individual feedback on written work • appropriate assessment exercises within each module • use of electronic teaching materials including Powerpoint, QMPlus (QM's on-line learning environment), and online reading lists • encouraging active participation by students in small group discussions research methods training Learning will be supported by: coherently designed and effectively delivered modules detailed module handbooks, providing learning outcomes and guided reading for each module • the provision of key materials in libraries or through electronic resources individual feedback on written work appropriate assessment exercises within each module use of electronic teaching materials including Powerpoint, QMPlus (QM's on-line learning environment), and online reading lists encouraging active participation by students in small group discussions research methods training

### How will you be assessed?

Assessment is varied and will take a number of forms within the programme. The nature of the assessment is closely connected to the desired learning outcomes and the mode of teaching within each module. Forms of assessment include:

- unseen examinations
- coursework essays
- research projects and dissertations
- project synopses
- student presentations and role play exercises
- group projects and presentations
- literature reviews

### How is the programme structured?

Please specify the full time and part time programme diets (if applicable). Please also outline the QMUL Model arrangements for each year of study. The description should be sufficiently detailed to fully define the structure of the diet.

The programme is structured around a set of compulsory modules and a range of optional modules, as identified in the list below.

Students take modules up to the value of 120 credits in each of their 3 Developmental Years. Students in Developmental Year 1 must only select level 4 modules. Students in Developmental Year 2 select level 5 modules. Students in Developmental Year 3 will normally select level 6 modules, but are permitted to take some level 5 modules up to the value of 30 credits. Further information on College rules governing progression and award of degrees can be found at www.arcs.qmul.ac.uk

During Developmental Year 1, students take 105 credits of compulsory modules and 15 credits of optional modules. The



compulsory modules are designed to provide a firm grounding in environmental issues, environment and ecology and in appropriate research methodologies, approaches to environmental study and fieldwork and generic skills training.

During Developmental Year 2, students take 90 credits of compulsory and 30 credits of optional modules. The compulsory modules are designed to provide students with a more advanced understanding of the material cycles that are fundamental to the functioning of the earth system. They also offer an introduction to research strategies and project design (including research proposal writing) as well as experience in core field and laboratory techniques, in preparation for independent research undertaken at Level 6. Compulsory Business and Management modules cover marketing and financial accounting. The optional modules provide students with the potential to extend their knowledge of biological ecosystems and of environmental, physical and human aspects of geographical research by drawing upon existing modules offered in the School of Geography and the School of Biological and Chemical Sciences.

During Developmental Year 3, students take 60 credits of compulsory modules and 60 6credits of optional modules. One compulsory module is the Project in Environmental Science which is based on undertaking original research. This module is seen as the culmination of students' training in research design, methods, analysis and presentation and demonstrates their ability to deploy accurately techniques of analysis and enquiry. Students must also take modules dealing with business strategy and human resource management. The remaining 75 credits are selected from a range of specialist 15 or 30 credit modules, which reflect the distinctive research expertise of Geography and Biological and Chemical Science staff teaching on the programme and may include opportunities to undertake overseas fieldwork.

Note that not all of the elective modules listed in the following table will be offered every year. Some level 5 and level 6 modules can only be taken if certain pre-requisite level 4 or level 5 modules have already been completed; these requirements are detailed in handbooks and module descriptions on-line.

\*\*\*At Level 5 - Students can take EITHER/OR but not both - GEG5228 (Future Coasts) and BIO295 (Field Ecology)\*\*\* \*\*\*At Level 6 - Students can take EITHER/OR but not both - BIO391 and BIO395\*\*\*

At Level 5 students may select modules from outside the School of Geography, to a maximum of 15 credits, as part of their 120credit diet.

Module Title	Module Code	Credits	Level	Module Selection Status	Academic Year of Study	Semester	QMUL Model
Ideas and Practice in Geography and Environmental Science	GEG4002	15	4	Compulsory	1	Semesters 1 & 2	Yes
Research Methods for Geographers and Environmental Scientists	GEG4004	30	4	Compulsory	1	Semesters 1 & 2	No
People and the Environment	GEG4005	15	4	Elective	1	Semester 1	Yes
Ecology	BIO123	15	4	Elective	1	Semester 2	No
Fieldwork in Physical Geography and Environmental Science	GEG4204	15	4	Compulsory	1	Semester 2	No
Earth Surface Science	GEG4209	15	4	Compulsory	1	Semester 2	No

### Academic Year of Study FT - Year 1



Module Title	Module Code	Credits	Level	Module Selection Status	Academic Year of Study	Somoctor	QMUL Model
Fundamentals of Managment	BUS001	15	4	Compulsory	1	Semester 1	No
Economics for Business	BUS017	15	4	Compulsory	1	Semester 2	No

# Academic Year of Study FT - Year 2

Module Title	Module Code	Credits	Level	Module Selection Status	Academic Year of Study	Semester	QMUL Model
Environmental Research Methods	GEG5212	15	5	Compulsory	2	Semester 1	Yes
Research Design	GEG5214	15	5	Compulsory	2	Semesters 1 & 2	Yes
Advanced Environmental Research Skills	GEG5213	15	5	Compulsory	2	Semester 2	No
Society and Space	GEG5127	15	5	Elective	2	Semester 2	Yes
Spaces of Uneven Development	GEG5128	15	5	Elective	2	Semester 1	Yes
Economic Geographies	GEG5129	15	5	Elective	2	Semester 2	Yes
Health, Space and Justice	GEG5130	15	5	Elective	2	Semester 2	Yes
Geographies of Biomedicine	GEG5134	15	5	Elective	2	Semester 1	Yes
Geospatial Science	GEG5223	15	5	Elective	2	Semester 2	Yes
Ecosystem Science	GEG5224	15	5	Compulsory	2	Semester 2	Yes
Geomorphology	GEG5225	15	5	Elective	2	Semester 1	Yes
lce Age Britain	GEG5226	15	5	Elective	2	Semester 1	Yes
The Anthropocene	GEG5227	15	5	Elective	2	Semester 1	Yes



Module Title	Module Code	Credits	Level	Module Selection Status	Academic Year of Study	Semester	QMUL Model
Future Coasts	GEG5228	15	5	Elective	2	Semester 2	No
Ecological Interactions	BIO293	15	5	Elective	2	Semester 2	No
Field Ecology	BIO295	15	5	Elective	2	Semester 2	No
Animal and Plant Diversity	BIO211	15	5	Elective	2	Semester 1	No
Marketing	BUS011	15	5	Compulsory	2	Semester 2	No
Principles of Financial Accounting	BUS138	15	4	Compulsory	2	Semester 1	No

# Academic Year of Study FT - Year 3

Module Title	Module Code	Credits	Level	Module Selection Status	Academic Year of Study	Semester	QMUL Model
Cold Environments	GEG6202	15	6	Elective	3	Semester 2	No
Environmental Hazards	GEG6203	15	6	Elective	3	Semester 1	No
Science and Politics of Climate Change	GEG6214	15	6	Elective	3	Semester 1	No
Integrated Catchment Management	GEG6218	15	6	Elective	3	Semester 2	No
Progress in Physical Geography and Environmental Science	GEG6221	15	6	Elective	3	Semester 2	No
Geo-ecology and Geo-ecosystems	GEG6222	15	6	Elective	3	Semester 2	No
Terrestrial Vegetation Modelling	GEG6223	15	6	Elective	3	Semester 1	No
Ancient Human Occupation of Britain	GEG6225	15	6	Elective	3	Semester 1	No
Environmental Pollution (place holder)	GEG6226	15	6	Elective	3	Semester 1	No



Module Title	Module Code	Credits	Level	Module Selection Status	Academic Year of Study	Semester	QMUL Model
Future Coasts	GEG6228	15	6	Elective	3	Semester 2	No
Flood Risk Management	GEG6314	15	6	Elective	3	Semester 1	No
Placeholder PG1	GEG6227	15	6	Elective	3	Semester 1	No
Placeholder PG2	GEG6229	15	6	Elective	3	Semester 2	No
Project in Environmental Science	GEG6212	30	6	Compulsory	3	Semesters 1 & 2	No
Environmental Engineering	DEN320	15	6	Elective	3	Semester 2	No
International Environmental Law	LAW6459	15	6	Elective	3	Semester 1	No
Behavioural Ecology	BIO311	15	6	Elective	3	Semester 1	No
Tropical Ecology and Conservation	BIO391	15	6	Elective	3	Semester 3	No
Species and their Relationships	BIO395	15	6	Elective	3	Semester 1	No
Climate Change and Conservation Challenges	BIO343	15	6	Elective	3	Semester 2	No
Strategy	BUS204	15	6	Compulsory	3	Semester 1	No
The Management of Human Resources	BUS324	15	5	Compulsory	3	Semester 2	No

### What are the entry requirements?

The School considers each candidate individually. Entry requirements are as follows:

A-levels

Tariff/Grades requirement: A range of offers is ABB-BBB with a typical offer of ABB for 2018 entry. One science A-level at grade B is required for F850 BSc Environmental Science with Business Management. Excluded subjects: General Studies.

Vocational or applied A-levels

The following Applied A-levels and Double Awards only are acceptable: Art and Design; Business; Information and Communication Technology; Leisure and Recreation; Media; Performing Arts; Science; Travel and Tourism.

English Language:

IELTS 6.5 (Writing 6.0), equivalent qualifications are acceptable.

BTECs:



BTEC Extended Diploma: Typical offer DDM BTEC Diploma and A Level combination: Typical offer DD plus B at A Level

#### International Baccalaureate

Acceptability: Acceptable on its own and combined with other qualifications. Subjects and grades required: 30-32 points overall with 6,5,5 - 5,5,5 in Higher Level subjects to include a science subject. Typical offer IB 32 with 6, 5, 5 in Higher Level subjects to include science.

### How will the quality of the programme be managed and enhanced?

The School of Geography operates a Teaching and Learning Committee which advises the Director of Taught Programmes on all matters relating to the delivery of taught programmes at school level including monitoring the application of relevant QM policies and reviewing all proposals for module and programme approval and amendment before submission to Taught Programmes Board. Student views are incorporated in the committee's work through the reporting of minutes from the Staff-Student Liaison Committee and via the consideration of module evaluations and student surveys.

Like all schools/institutes at Queen Mary, the School of Geography operates an Annual Programme Review (APR) of its taught undergraduate and postgraduate provision. APR is a continuous process of reflection and action planning which is owned by those responsible for programme delivery. Students' views are considered in this process through analysis of the NSS and module evaluations and through the comments of Staff-Student Liaison Committee.

### How do we listen to and act on your feedback?

The Staff-Student Liaison Committee provides a formal means of communication and discussion between the School of Geography and its students. The committee consists of student representatives from each year group together with appropriate representation from staff within the School. It is designed to respond to the needs of students, as well as act as a forum for discussing programme and module developments. Staff-Student Liaison Committees meet regularly throughout the year.

All modules provide end-of-module evaluation questionnaires to be completed by students, the results of which are considered annually by module convenors and teaching teams and may lead to modifications of module content and/or delivery in future years.

### What academic support is available?

The Schools of Geography and Biological and Chemical Sciences are welcoming and friendly and all academic and professional support staff play a role in ensuring that students are supported through their studies.

Programme Induction is provided for all incoming students during Welcome Week. This is used as an opportunity to acquaint new students with the format of the programme and expectations of them. Students also receive a library induction. All students meet with a designated Personal Tutor during this week to talk about module selection and how to manage the registration process. Students with special educational needs have the opportunity to talk to their adviser about how the College can best support them, and to agree with the students how to communicate those needs to appropriate members of staff. In week 1 of the first year we also run a week of intensive fieldwork and other activities called 'Investigating London'. This provides and opportunity for extended induction and for staff and students to get to know one another.

All first year students are allocated a Teaching Associate Tutor with whom they will meet for an hour weekly or fortnightly during Semesters A and B and an Advisor with whom they will meet at appropriate intervals. Second year students will meet with their personal tutors (also their Advisors) on a fortnightly basis. In the final year, Personal Tutors/Advisors also act as students' Independent Geographical Study supervisors and regular one-to-one meetings take place. All staff have weekly office hours when they are available to see students on a one-to-one basis.



Further academic support can be obtained from Year Tutors in Geography who are responsible for specific year cohorts of undergraduate students, dealing with problems and pastoral care issues as well as monitoring attendance and engagement. The Senior Tutor has overall responsibility for matters concerning student support and welfare within the School and can be consulted in relation to more serious issues and problems. Finally, the Schools of Geography and Biological and Chemical Sciences both participate in the College's PASS scheme -- a peer-mentoring system where new students can seek advice and support for students at later stages in their degree programme.

### Programme-specific rules and facts

N/A

### Specific support for disabled students

Queen Mary has a central Disability and Dyslexia Service (DDS) that offers support for all students with disabilities, specific learning difficulties and mental health issues. The DDS supports all Queen Mary students: full-time, part-time, undergraduate, postgraduate, UK and international at all campuses and all sites.

Students can access advice, guidance and support in the following areas:

- Finding out if you have a specific learning difficulty like dyslexia
- Applying for funding through the Disabled Students' Allowance (DSA)
- Arranging DSA assessments of need
- Special arrangements in examinations
- Accessing loaned equipment (e.g. digital recorders)
- Specialist one-to-one study skills tuition
- Ensuring access to course materials in alternative formats (e.g. Braille)
- Providing educational support workers (e.g. note-takers, readers, library assistants)
- Access to specialist mentoring support for students with mental health issues and Autistic Spectrum Disorders.

### Links with employers, placement opportunities and transferable skills

We would expect a successful graduate from the BSc Environmental Science programme to have:

• good knowledge and understanding of key the processes that shape the social and economic world and the physical environment

• the ability to employ a variety of social survey and interpretative methods for the collection, analysis and understanding of information from the human world

- the ability to employ a variety of technical methods for the collection and analysis of spatial and environmental information
- good written and verbal communication skills
- good numeracy and analytical skills
- confidence in using Information Technology
- competence in information handling and retrieval
- good interpersonal working skills
- the ability to work autonomously, showing initiative and demonstrating self-awareness and self-management
- flexibility, adaptability and creativity

Throughout their period of study, students are encouraged to reflect upon the acquisition of skills and their future employability. Tutorials in all three years deal with issues such as CV planning, skills development and applying for internships and graduate positions. Working with Queen Mary's Careers Service, the School also hosts employability forums (or similar) with recent graduates who offer insights and advice and encourage students to apply for internships and other activities that provide relevant work experience. Some modules include visiting speakers from industry and/or visits to commercial companies and environmental research organisations.



Graduates from the BSc Environmental Science programme have gone on to a wide range of careers including: conservation and environmental analysis, quantity surveying; business and finance; marketing and promotion; human resources; media and communication; planning and regeneration; housing and welfare; community development; teaching and lecturing; research. The degree provides a strong platform for further study at masters level and beyond, especially in physical geography and environmental sciences.

# **Programme Specification Approval**

Person	completing	Programme	Specification:
	••••••••••••••••••••••••••••••••••••••		

Emma Shapcott

Person responsible for management of programme:

Date Programme Specification produced / amended by School / Institute Learning and Teaching Committee:

Date Programme Specification approved by Taught Programmes Board:

Kate Spencer

7 Feb 2018

